

# **Boris Red 4**

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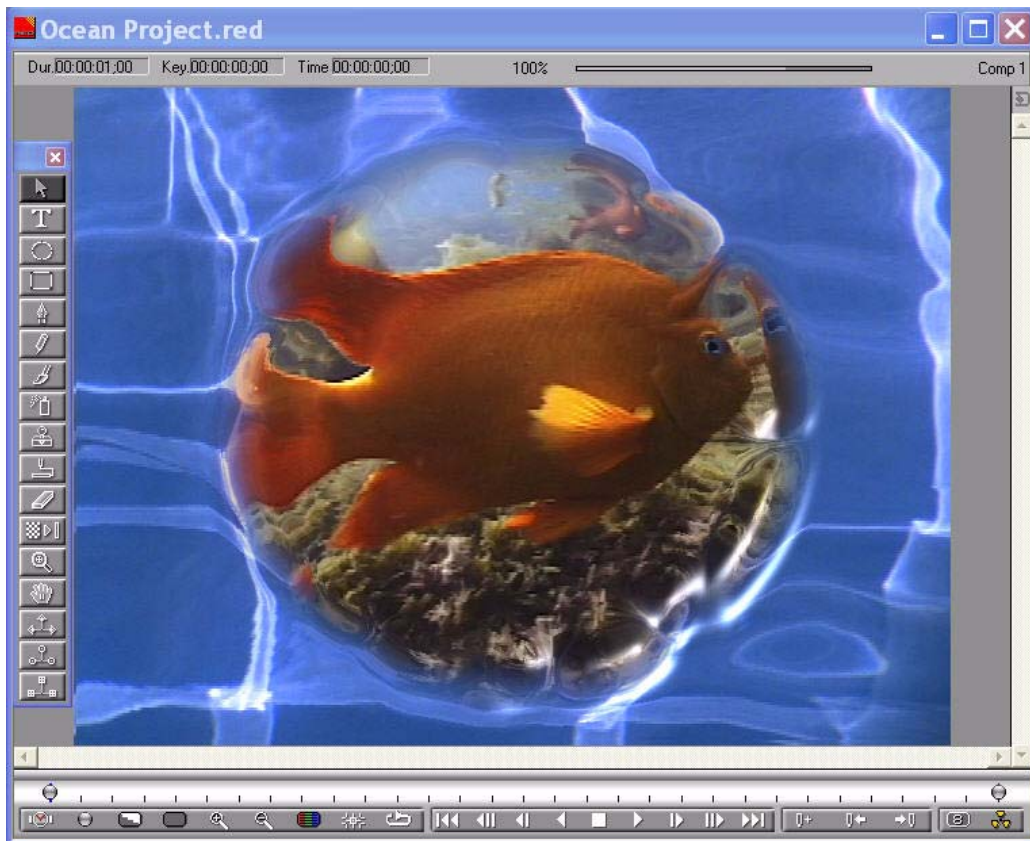
**New Host Support**

**Productivity Enhancements**

**New Features in RED 4.3**

## Introduction

This guide contains an overview of key new features in Boris Red 4.0. For details about these features, see the Boris Red Online Help. The Boris Red CD-ROM includes Release Notes and a new, full-featured Online Help system with step-by-step instructions, Tutorials, and information about OpenGL.



*Red 4 Composite Window with Integrated Keyframe Track*

# Key Features

## Support for 16-Bit Color

Red now supports 16-bit color image processing; it supports trillions of colors, which results in smoother gradients and more precise color correction.

## New User Interface

Boris Red 4 incorporates NLE look and feel for smooth user interaction and transition, automatic data updates, mini Timeline in the Composite window, and popular “Sticky” and “Magnetic” windows.

## Clone Paint

Clone Paint lets you use the brush in the new Paint feature as a cloning tool.

## Image Brushes

Image brushes give you the ability to “brush on” images in paint. Images can be still image files, movie files, natural media, or gradients. Still images files can be single or multi-layer images.

## Wacom Tablet Support

Wacom tablets are now fully supported, and you can use pressure-sensitive tablet data to drive raster paint strokes.

## Vector Trace

You can use the new Vector Trace tool to convert raster images to vector objects, and then extrude any of the resulting vector shapes, if you choose.

## Motion Path

The Motion Path effect lets you map one or more objects to a two-dimensional path that you draw using a spline. You can map single tracks, multiple tracks, or 3D containers to the path. Although the path is two-dimensional, you can rotate, tumble or spin the container to move the path in three-dimensional space

## Motion Key

The Motion Key effect lets you remove foreground objects from a moving image. This can be done by motion tracking the object or by keyframing a region shape.

### **Subtitles: Import, Editing, and Export**

The new Subtitle generator imports subtitles in EBU file format, and lets you export movies with alpha. An XML format export option allows for custom integration with Final Cut Pro.

### **New BCC and FEC Filters**

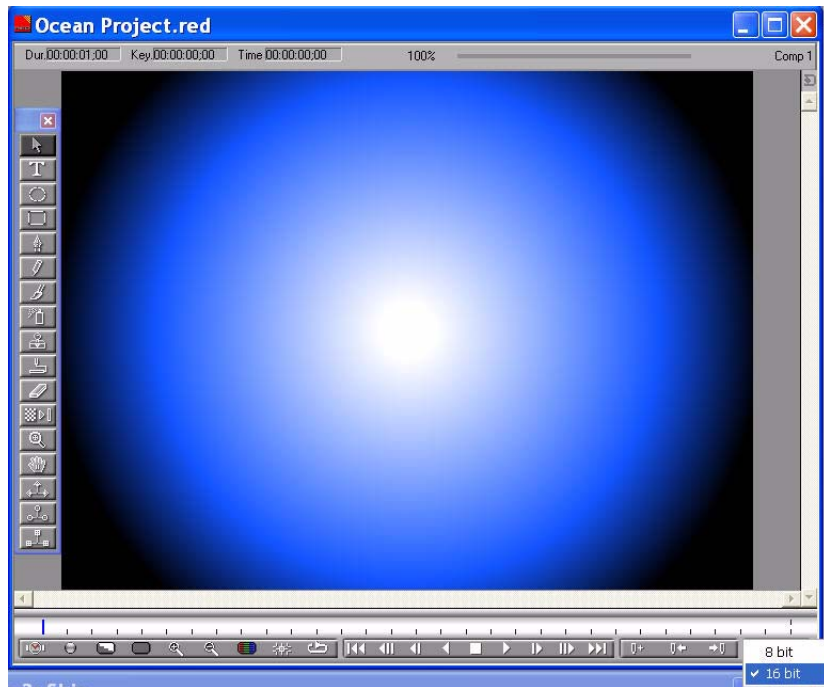
An extensive new set of filters has been added to Boris Red, including dozens of BCC 4 and FEC filters.

### **Consolidate Project**

This timesaving feature creates a folder and moves all media related to the current project into that folder along with the Project Settings file.

## Image Processing

Boris Red can now work with both 8-bit-per-channel and 16-bit-per-channel media; 16-bit-per-channel mode makes a larger range of colors available. When you work with high-resolution images that use a narrow range of colors, such as gradients for film effects or HDTV output, 16-bit-per-channel mode means that transitions between colors display less banding, and more detail is preserved.

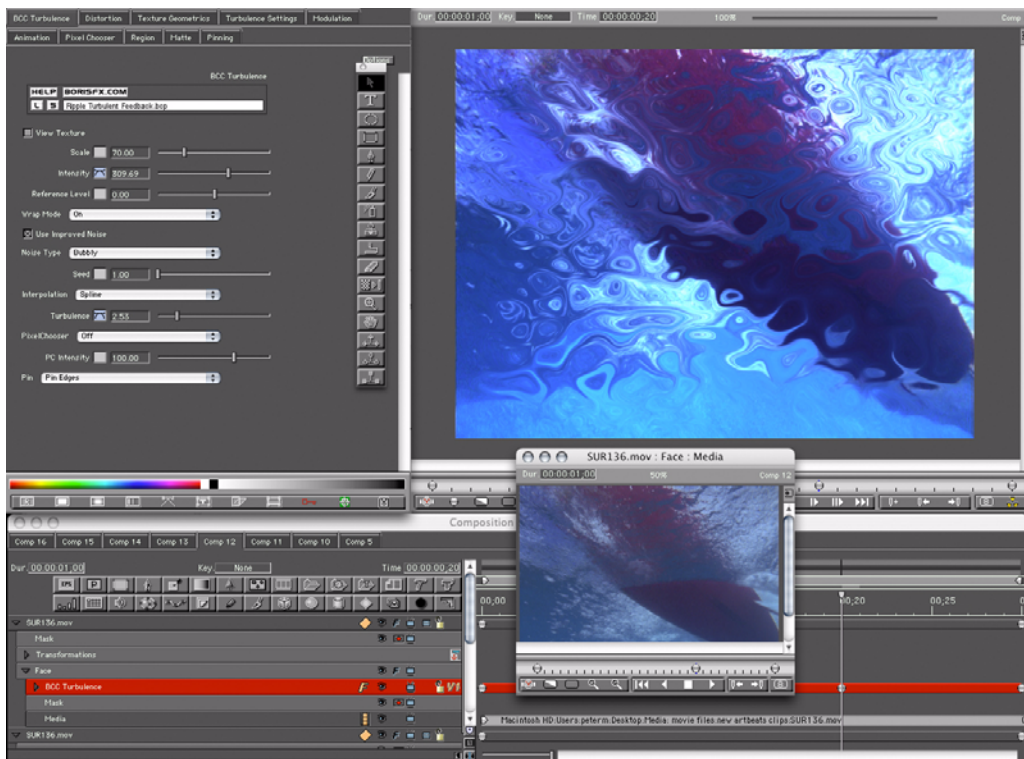


*16-bit Image Processing*

## New User Interface

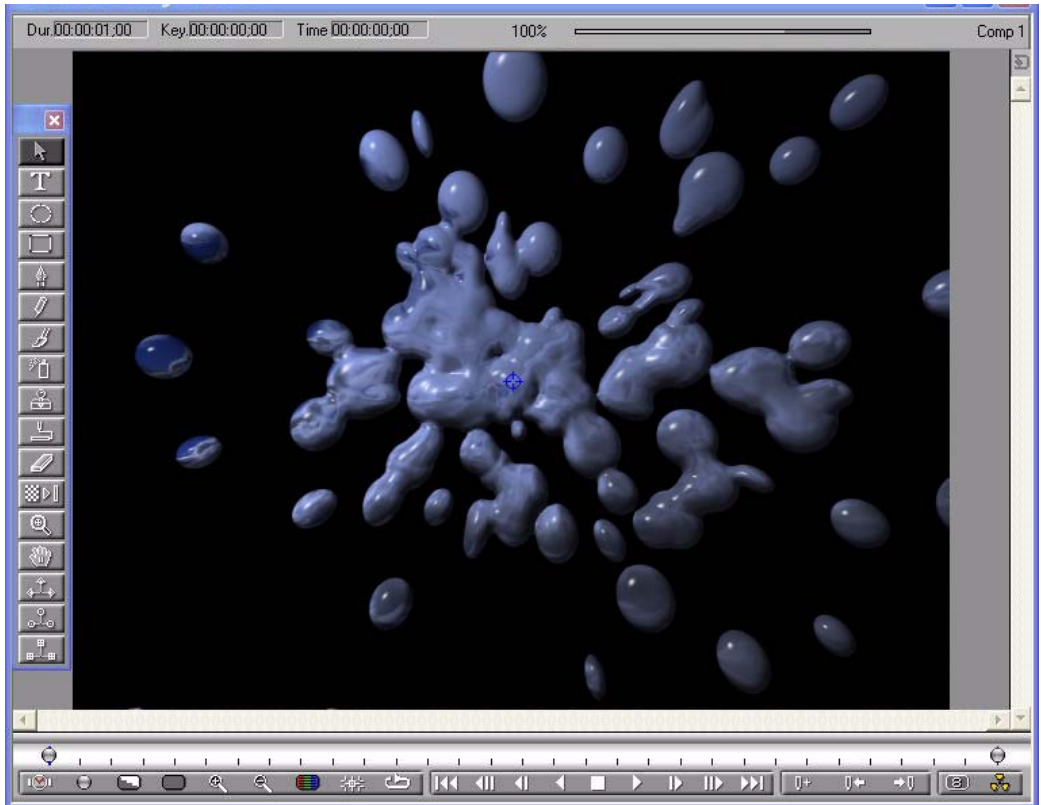
The Red user interface has a new look and feel to better match your NLE editor, and includes the following improvements:

- New Composite Window with an integrated keyframe track
- Tab-based multi-comp Timeline window
- Sticky windows option for easy layouts
- Project settings and modeless options palette
- Improved project window with a media tab
- Configurable shortcut buttons in timeline



## New Composite Window with Integrated Keyframe Track

The Composite window now contains a mini timeline where parameters can be keyframed. This allows certain effects to be animated without the aid of the timeline window, which now can be collapsed by a special button.



## Tab-based Multi-Composition Timeline Window

The new Timeline window displays all composites from within any given project in the timeline as an individual tab. You can have an unlimited amount of live composites in the timeline window. To switch to a different comp, the user need only click on the relevant tab in the timeline.

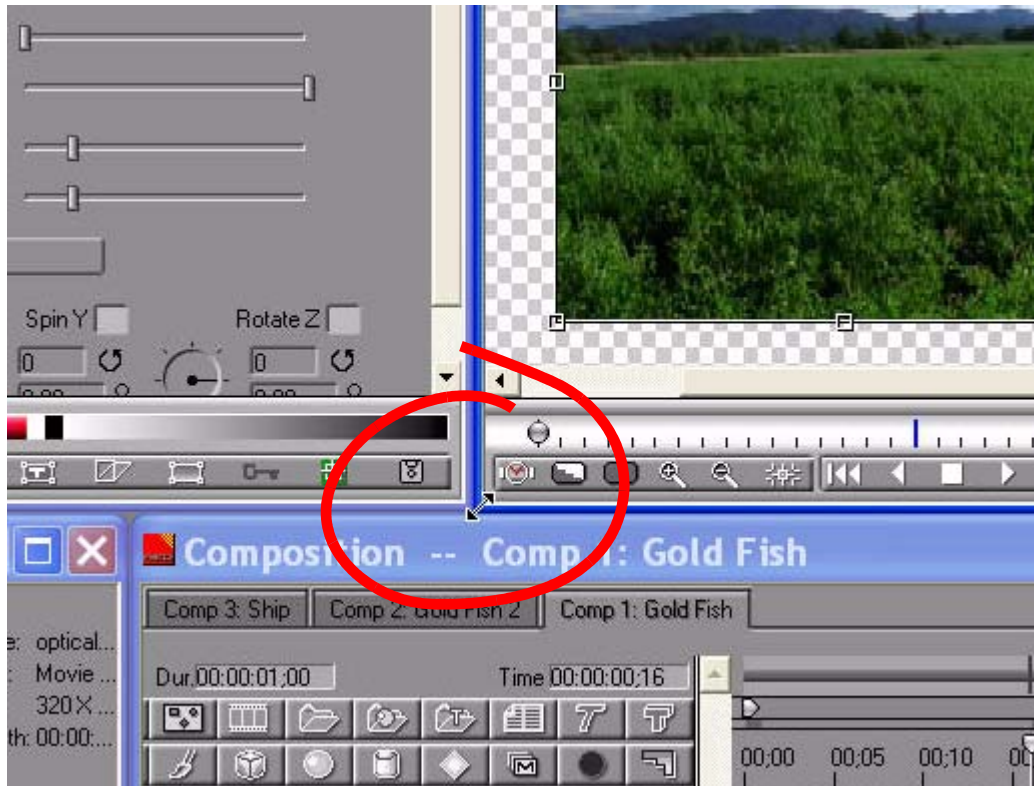


*Red 4 Tab-based Multi-Comp Timeline Window*



## Sticky Windows Option

The Sticky Windows option moves windows in unison; as you resize one window, other windows resize automatically to accommodate the change. For example, when you move the Timeline up or down, the Controls and Composite windows resize as well.



*Sticky Windows move in unison*

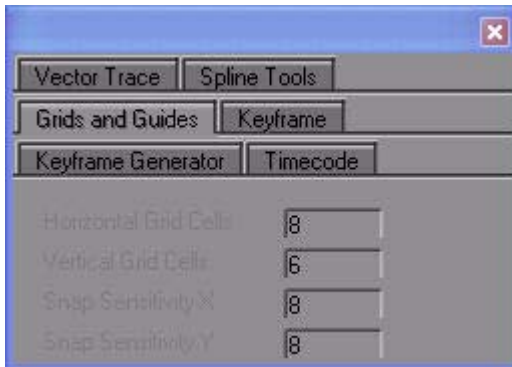
## Project Settings

A Project Window now appears when you launch Red, so that you can set the specifics of the project you want to work on. The options in this window are “sticky;” once you set the options, Red uses your settings as the default until you explicitly reset them.



## Modeless Options Palette

A new Options Palette allows you to adjust many settings that were previously available in the Preferences window. This makes working with functions, such as grids and guides, an easier task. The Options Palette is a floating window; you can leave it open at all times, and the changes you make in it are instantaneous. The options palette is available for Vector Trace, Splines, Grids and Guides, Keyframe Interpolation, Keyframe Generator, and Timecode. The following example shows the Grids and Guides tab.



Improved Project Window With Media Tab

The Project window now contains an Imported Media tab that displays all of the source media used in a project. It displays the Length, Type, and Size of each media source. This media list is compiled automatically from all media files used in the entire project. Using this tab, you can drag source media directly from the Project window into the timeline.

List	Frame	Render Queue	Imported Media		
Frame	Name	Length	Type	Size	
	boris_logo_sm.rgb.tiff	0:00:00:01	Image File Media	375 X 375	
	SUR128.mov	0:00:07:24	Movie File Media	720 X 486	
	VUS104.mov	0:00:18:09	Movie File Media	720 X 486	

Configurable Shortcut Buttons in Timeline

The Timeline now includes Shortcut buttons that you can configure to suit your work style or a specific project that you are working on. You can rearrange the buttons to your liking by selecting and dragging them.



## Paint Engine

The raster Paint feature is an all-new vector paint engine that includes the following kinds of paint: Color, Clone, Spray, Roller, and Eraser. There are controls for animating every parameter and of course the paint system includes the ability to use pressure data from Wacom tablet systems to drive several paint controls such as color, opacity and size. The Paint system can also use layered Photoshop files with alpha as spray nozzles. In addition to that, any paint stroke can be converted to a vector spline with the flip of a switch.

The new Paint engine lets you draw freehand images directly in the Composite window; it can be used both as a stylistic element and as a masking tool to cover up errors created during shooting.

Key Paint features include:

- Clone brush
- Tablet support
- Image based brushes, multiple layers supported
- Spray and roller brush styles
- Conversion to animatable vector spline strokes

### Clone Brush

The Paint tool now supports cloning. Cloning is the ability to replace one part of an image with material from another part of the image. When cloning is used to correct a problem within an image, it provides a more seamless look than can be achieved with a plain paintbrush. Use cloning to:

- Remove an object from an image, such as a boom or any other unwanted element
- Fix problems such as scratches, dust spots, and video glitches
- Replicate part of an image



*Original Image*



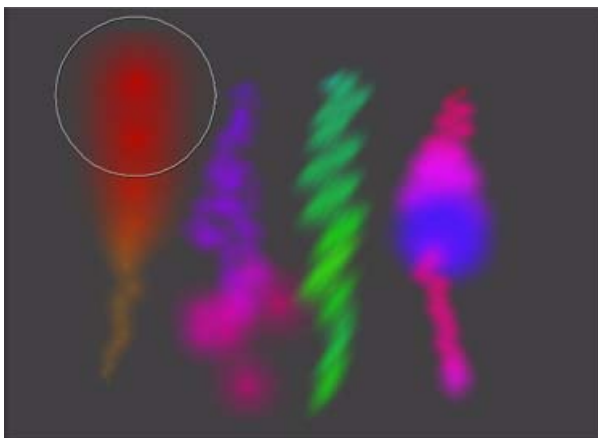
*Portion of image replaced*



*Portion of image repeated*

## Full Wacom Tablet Support

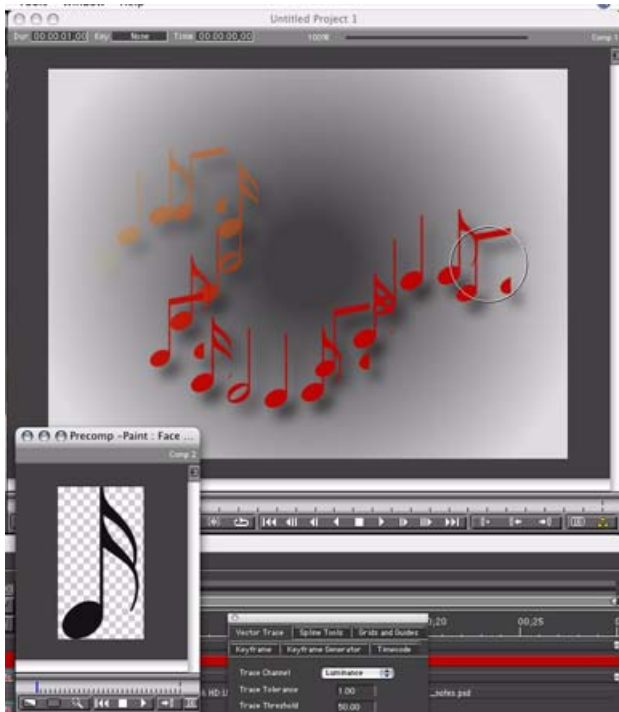
With the addition of support for pressure sensitive Wacom tablets, users can now work with these pressure sensitive Wacom tablet devices and use the Wacom data to drive raster paint strokes a variety of different ways. The data gathered from the tablet includes the following: pressure, velocity, direction, tilt, bearing, jitter, white noise, length and reverse length. Any one of these can be used to drive the color, opacity, and size of the brush along the length of the stroke.



*Supports changing brush size, color, and opacity*

## Image-Based Brushes

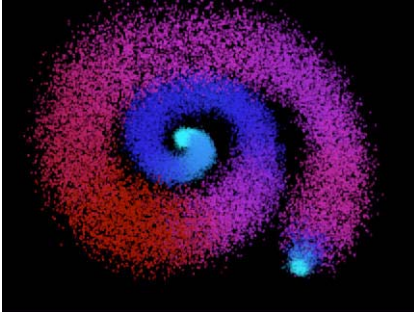
Image brushes give you the ability to brush on images in Paint. Images can be still image files, movie files, natural media, or gradients. Both single and multi-layer still images are supported.



*Brush on still images, movies, natural media, and gradients*

## Spray and Roller Brush Styles

Spray brushes allow you to paint as if using spray paint. Roller brushes allow you to roll on paint or use media from a brush image track.



*Spray Brush*



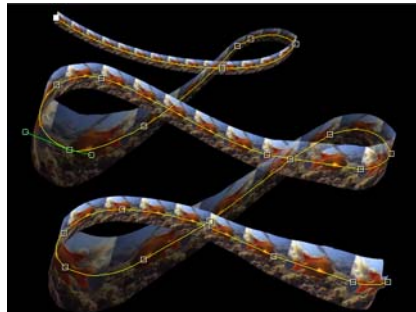
*Roller Brush*

## Conversion to Animatable Vector Spline Strokes

Red now allows paint strokes to be created as splines or converted to splines. This gives you additional editing control over individual strokes. You can then use spline editing tools, such as the Pen tool or Hollow Arrow tool to alter your paint stroke, as shown below.



*Roller Brush*



*Brush strokes converted to Vector Spline Strokes*



## Subtitles: Import, Editing, and Export

You can import subtitles, modify them as needed, and export them as a movie with alpha.



*Import, edit, and export subtitles*

### Importing Subtitles

The subtitle import feature lets you import EBU subtitle files and modify the imported text slates to suit your requirements right within the RED timeline.

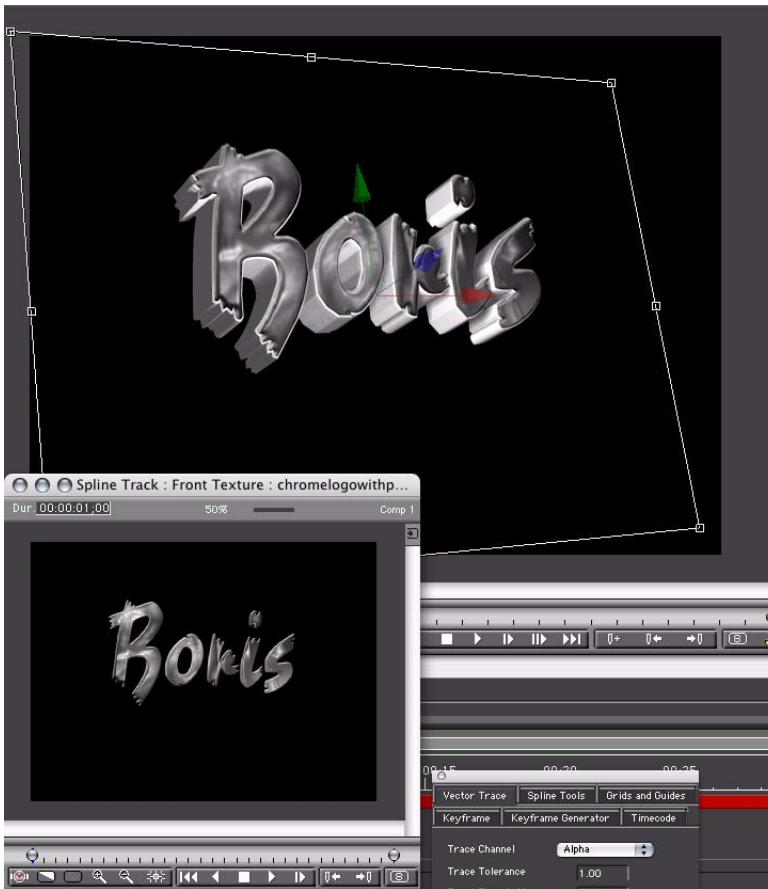
**Exporting Subtitles** Export your subtitles as a flat movie with alpha.

**Custom Integration with Final Cut Pro** As an added bonus to FCP users, the modified subtitle file can be exported as FCP XML data to import to FCP for complete integration and flexibility within the FCP timeline.

## Vector Spline Tools

### Vector Trace Tool

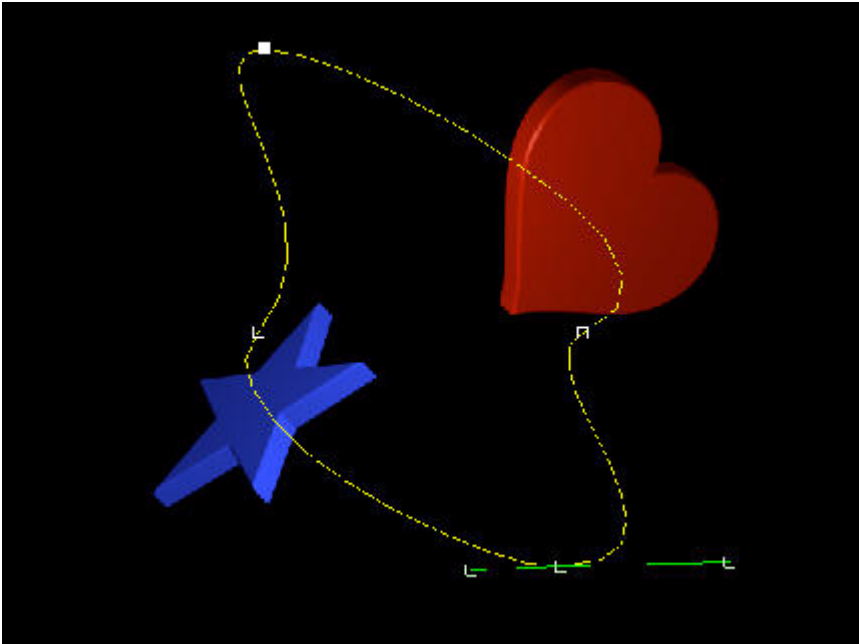
The Vector Trace tool allows you to convert a raster bitmap Image such as a tiff, jpeg or a frame from a movie file to a scalable vector graphic. You can then extrude any of the resulting vector shapes. Simply select the Vector Trace tool and drag the tool over the Image you want to convert. Options include the ability to select the color or alpha channel on which to base the conversion. This feature is useful if you want to convert an imported bitmap image so that you can then animate and extrude it, as in the following example:



*Vector Trace converts a bitmap to a vector graphic that can be extruded*

## Motion Path Filter

The Motion Path filter allows you to map one or more objects to a two-dimensional path. You create the path by drawing a spline. You can map single tracks, multiple tracks, or 3D containers to the path. Although the path is two-dimensional, you can rotate, tumble or spin the container to move the path in three-dimensional space.



*Motion Path in three-dimensional space*

## Optical Flow Tools

### Motion Key Foreground Object Removal

The new BCC Motion Key filter (located in the Keys and Matte category) allows you to isolate and remove a moving foreground object based on motion estimation. You define the object that you want to remove. For example, you have a static shot of some buildings and a car passes by on the street in front of the buildings. You could use this filter to remove the car and replace it with the buildings.



*Original image*



*Moving object in foreground removed*

### Optical Image Stabilizer

The BCC Optical Stabilizer filter (located in the Time category) allows you to stabilize shaky video footage. The Optical Stabilizer uses optical flow technology to analyze a specified region and then adjusts the track's position to compensate. Unlike many stabilizing tools, the BCC Optical Stabilizer does not require you to set user-defined tracking points. This is useful for images where tracking data is unreliable.



*Original image*



*Filtered image*

## New Filters

Boris RED now includes brand new filters from the most recent Boris Continuum Complete (BCC) and Final Effect Complete (FEC) releases. These powerful new filters are a significant addition to the product and ease the work of such common tasks as foreground object removal and image stabilization.

### Color and Blurs Filters

#### BCC Color Choker Filter

This filter independently chokes the red, green, and blue channels of an image. It is intended for use with opaque images and does not use the alpha channel. The controls are very similar to those in the Composite Choker filter, except that the latter filter affects alpha. Use this filter to create effects in which color details have more contrast and are softer. In the default choke mode.



*Source Image*



*Color Blowout preset applied*



*EvenDifference preset applied*



*Red Choke 1=-13*



*Red Choke 1=-2*



*Red Choke 1=15*

## BCC Color Match

BCC Color Match simplifies the process of matching the color or luma values of two clips in the timeline. For instance, if two clips with different lighting conditions are spliced together, the clips color and luma values will differ. Match Color automates the process of removing or balancing the difference between the two clips by setting color or luma values for the highlight, mid, and shadow areas of the image.



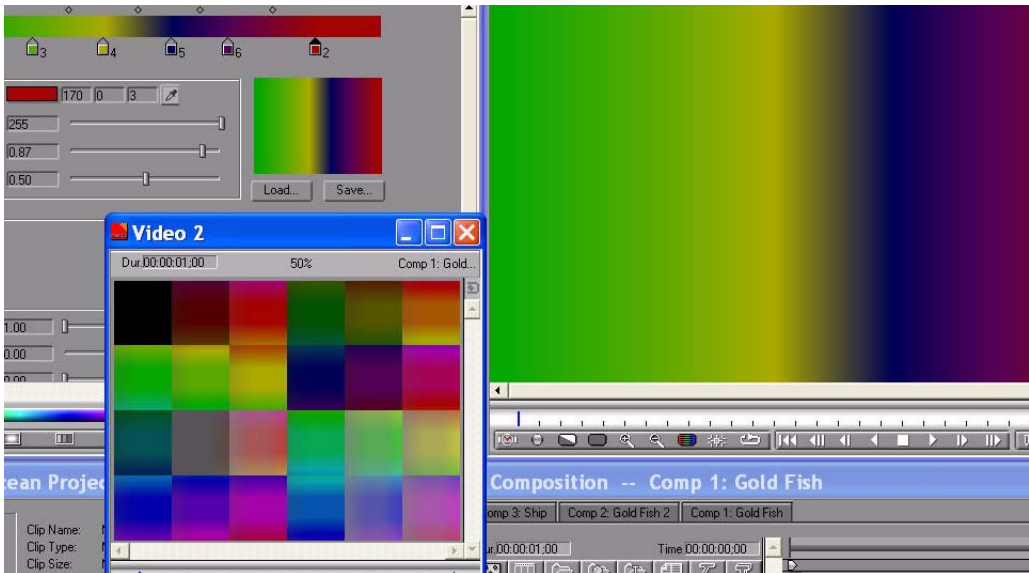
Original image



Filtered image (and matched target clip)

## BCC Color Palette Filter

The Color Palette filter provides a number of ways to select colors from the host user interface for your project. You can also use the Color Palette filter to set colors which can be used any number of times within the current project.



## BCC Motion Blur Filter

The BCC Motion Blur filter creates a realistic blur on the motion in an image, simulating the effect of shooting a moving object on film. The blur is based on the motion of the pixels in the image. For example, you could apply the Motion Blur filter to a clip of a speeding car and the car's motion would blur while the background would not. The blur is most pronounced when the object moves quickly and more subtle when it moves slowly. Motion blur is not visible if the image is static.



*Source image*



*Source image*



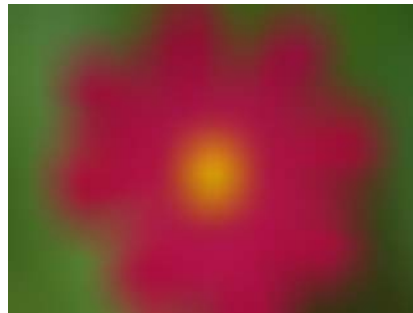
*Filtered image*

## BCC Pyramid Blur Filter

The BCC Pyramid Blur filter emulates the look of shooting in soft focus or with lens diffusion. This filter allows you to blur the horizontal and vertical components of the image separately. The functionality is similar to the BCC Blur filter. However, BCC Pyramid Blur uses a refined algorithm that speeds rendering approximately 20 - 40 percent. When you create new blur effects, you should use this filter.



*Original Image*



*Filtered Image*

## BCC Radial Blur Filter

The BCC Radial Blur filter creates a blur around a specific point, simulating the affect of a zooming or rotating camera. The Amount option specifies the amount of blur, depending on the selection for Type. For a Spin blur, which applies blurs in circles around the center point, the Amount value indicates the degree of rotation. For a Zoom blur, which applies blur that radiates out from the center point, the Amount value specifies the degree of radial blurring.



*Original Image*



*Filtered Image*



## BCC RGB Blend Filter

RGB Blend provides independent compositing of the source image's RGB channels with the Mix Layer's RGB Channels. The brightness and contrast of the composite can be adjusted independently for each channel.



*Source image*



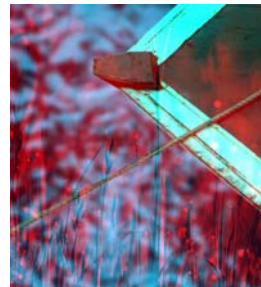
*Mix Layer*



*Red Mix=0*



*Red Mix=50*



*Red Mix=100*

## BCC Safe Colors Filter

The BCC Safe Colors filter prevents clips from having saturation values that exceed the legal limits of broadcast standards. Use this filter to limit the values that are present in the image.



## BCC Spiral Blur Filter

The BCC Spiral Blur filter creates a blur or smear that appears as though it is spiraling toward the center of the image.



*Original Image*



*Filtered Image*

## Distortion & Perspective Filters

### BCC Turbulence Filter

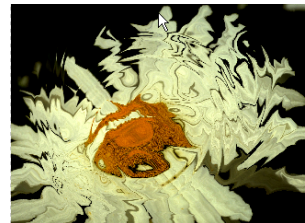
The turbulence filter is a Noise Map 2 filter wired to a displacement map. All of the controls that affect distortion are identical to those in the BCC Displacement Map filter. All of the other controls are identical to those in the Noise Map 2 filter. There is one additional control, View Texture, which views the Noise Map and produces the same output as a Noise Map 2 filter with the same controls.



*Original Image*



*Spooky Noise preset applied*



*Ring and Scale preset applied*

### BCC Corner Pin

The BCC Corner Pin filter allows you to map media to a specific area on a moving object in a media file. For example, suppose your movie includes a moving bus with an advertisement on its side. You could use Corner Pin to track and replace the advertisement with a logo.



*Original image*



*Corner Pin Image*



*Filtered image*

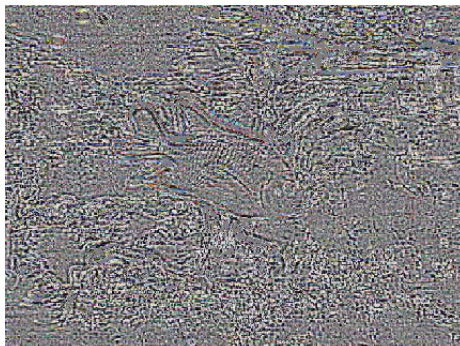
## Effects Filters

### BCC DeGrain Filter

BCC DeGrain removes grain-sized noise from an image by analyzing a sample of the grain, then filtering out image noise that has similar frequency (spectrum) and amplitude.



*Degrained Image*



*Grain sample*

### BCC Deinterlace Filter

The BCC Deinterlace filter converts interlaced video clips into progressive-scan frames, such as footage shot on film. Deinterlace can render “simulated TeleCine” style by adding pulldown. This filter can also convert 29.97fps NTSC video into 24fps film-style frames.

## BCC Drop Shadow Filter

The BCC Drop Shadow filter allows you to apply an animatable drop shadow to titles or clips in the timeline.



*Source image*



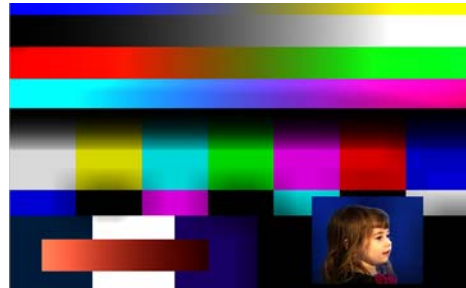
*Filtered image*

## BCC Film Process Filter

Film Process allows you to give video footage the appearance of having been shot on film. This filter allows you to integrate different types of media in a single project. For example, match computer-generated animations with archival film stock, make video appear like color-pushed film, infrared film, or color reversal film or make images appear warmer or cooler. You may want to combine this filter with the BCC Deinterlace, BCC Film Grain, BCC Film Damage and BCC Match Grain filters for the most realistic results.



*Unfiltered video image*



*Filtered to look like Color Reversal Film*



## BCC Glow Alpha Edges Filter

The BCC Glow Alpha Edges filter applies a glow that adheres to the contours of the image's alpha channel or mask. Use this filter with masks or images that have an alpha channel.



*Original Image*



*Filtered Image*

## BCC Halftone Filter

The BCC Halftone filter simulates the look of printed material by converting the image to simulated halftone dots. Print images are comprised of a rosette pattern of colored ink dots. To avoid moiré or interference patterns, the dots are printed at different angles; this process is known as halftone screening. This is also used in the art world as a creative process such as the work produced by Lichtenstein.



*Original image*



*Filtered image*

### BCC Median Filter

The BCC Median filter makes each pixel look like the majority of its neighboring pixels. It produces a smeary look, but with sharp edges (at neighborhood boundaries). The Median filter also reduces noise by eliminating “spikes”, or pixels that are very different from their neighbors (also referred to as “salt and pepper noise”).



*Original image*



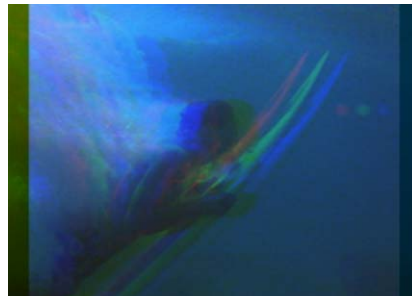
*Filtered image*

### BCC Misalignment Filter

The BCC Misalignment filter simulates the effect of misaligned RGB color channels.



*Unfiltered Image*



*Filtered Image*

## BCC Witness Protection Filter

The Witness Protection filter allows you to track the motion of an object in a media file. You can then use the motion track data to control another aspect of the effect. For example, track a logo on a t-shirt and use a blur to obscure it. You can apply a mosaic, blur, tint or brightness/contrast effect to the specified area.



*Unfiltered Image*



*Filtered Image*

## Paint

For your convenience the new Paint Engine is included as a filter in the Effects Filters category. For details about Paint, please refer to the section on the [Paint Engine](#).



*Painted clouds*



## FEC Plug-Ins

### FEC Blobbylize Filter

FEC Blobbylize w/Blob Map uses gradient map defined by another input to create a blobby, glossy cutout of the other image. The Blob Layer can be virtually anything, from simple text to a complex particle animation.



*Unfiltered Image*



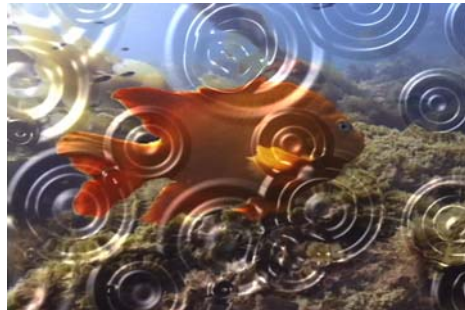
*Filtered Image*

### FEC Drizzle Filter

FEC Drizzle is a particle-based simulation of circular ripples on a watery surface akin to ripples on a pond caused by light raindrops.



*Unfiltered Image*



*Filtered Image*

## FEC Glass Filter

FEC Glass creates a convincing glass-like appearance. To accomplish this effect, the selected image defines a bump map, which is then used to create a glossy, 3D texture. Use FEC Glass to create dramatic and innovative effects by using values from a different layer to create the illusion of that layer rising through the source layer.



*Unfiltered Image*



*Filtered Image*

## FEC Glass Wipe Transition

FEC Glass Wipe creates a transition simulating a glassy layer “melting away” to reveal another layer. An additional gradient layer is used to define the transition wipe pattern as well as the glassy surface deformations.



*Unfiltered Image*



*Filtered Image*

### FEC Hair Filter

FEC Hair creates particles that stretch into filaments like hair. Hair uses a chosen property to determine where hair should grow.



*Unfiltered Image*



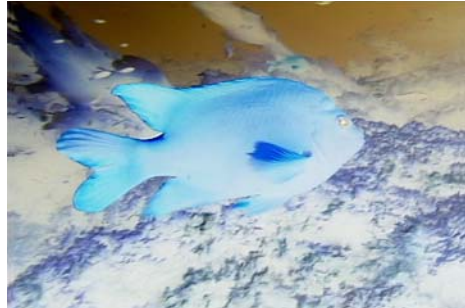
*Filtered Image*

### FEC Invert Filter

FEC Invert reverses the color information of a clip.



*Unfiltered Image*



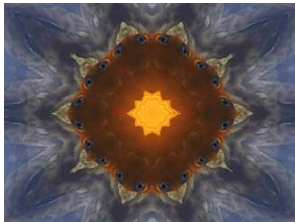
*Filtered Image*

## FEC Kaleida Filter

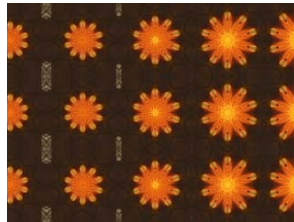
The FEC Kaleida filter creates a kaleidoscopic effect on the source image. The kaleidoscope image becomes a tile that is repeated across the image.



*Source Image*



*CrazyDaisy2 preset applied*



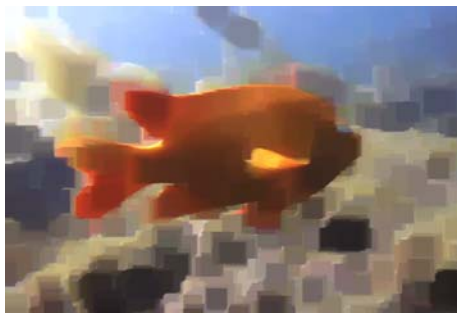
*Stars Expand Right preset applied*

## FEC Min/Max Filter

FEC Min/Max assigns each pixel in your footage the minimum or maximum pixel value found within a specified radius. For example, a white solid layer with a square mask shrinks one pixel on each side using minimum and a radius of one. The layer quality setting does not affect this filter.



*Unfiltered Image*



*Filtered Image*



## FEC Mr. Mercury Filter

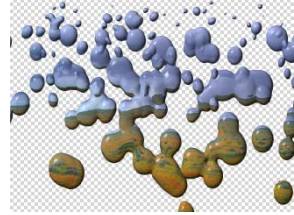
FEC Mr. Mercury is a particle system that creates ever changing blobs rather than stable shapes. You can use Mr. Mercury controls to create an almost infinite number of different animations. Mr. Mercury is especially adept at creating convincing mercurial effects for cascading water, molten metal, and dissolving plastic. The blobs created by Mr. Mercury behave realistically, splitting and rejoining just like real-world liquid particles.



*Source Image*



*CrinklyBlobsLitBelow preset*



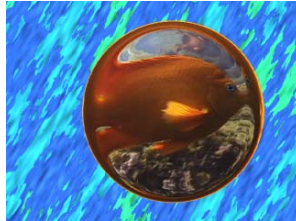
*OminousRain preset*

## FEC Radial Scale Wipe Filter

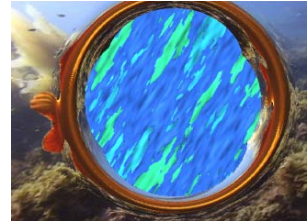
The FEC Radial Scale Wipe is a transition in which the outgoing clip is distorted as it is wiped away. Pixels that are outside the wipe region are squeezed so they appear within the rendered image. This filter also works as an effective picture-in-picture effect.



*Source Image*



*Centered PIP preset applied*



*OverDistorted preset applied*

### FEC Sharpen Filter

FEC Sharpen increases the contrast of the color edges in an image. The effect makes the color edges more distinct. Noise or graininess is also enhanced. The effect is very local, mixing only adjacent pixels.



*Unfiltered Image*



*Filtered Image*

### FEC Soften Filter

FEC Soften makes the color edges of an image less distinct and reduces noise or graininess. The effect is localized, mixing only adjacent pixels.



*Unfiltered Image*



*Filtered Image*

## FEC Threshold Filter

FEC Threshold is useful for creating a mask from a footage file that does not currently have an alpha channel.



*Unfiltered Image*



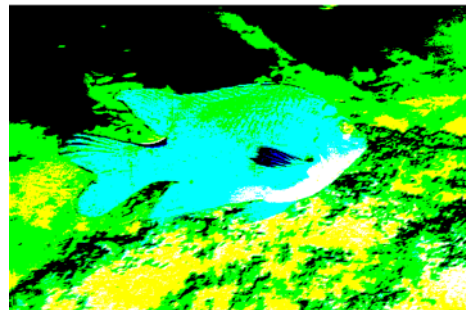
*Filtered Image*

## FEC Threshold RGB Filter

FEC Threshold RGB lets you create thresholds based on individual red, green, or blue values.



*Unfiltered Image*



*Filtered Image*

## Generators Filters

### BCC Caustics

The BCC Caustics filter can be used to simulate the effect of light refracting through a surface of water and projected onto a surface (like moving water ripple reflections on a pool bottom). You can use this filter to create many types of effects where rays emanate from a point and are reflected or refracted by a curved surface. For example, you could use this filter to generate moving plasma fields, smoky particle effects, waves in a pool, or animating geometric patterns.



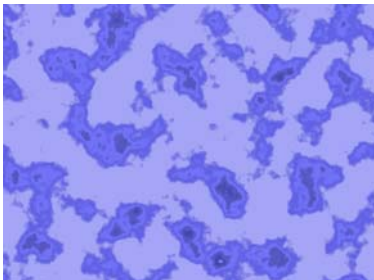
*smoky effect*



*pool effect*

### BCC Fractal Noise

Fractal Noise creates a simulated marble texture.





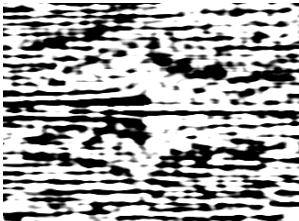
## BCC Noise Map

Noise Map is a procedural noise generator that produces a continuously flowing gradient that can be used to provide organic input to other filters. Because the noise is continuous, there is never a seam.

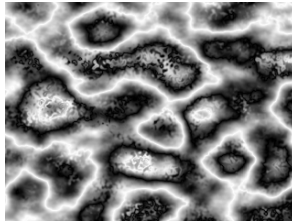


## Noise Map 2

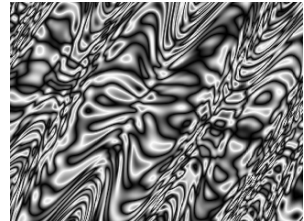
The Noise Map 2 filter uses a three dimensional noise map to generate monochrome textures for use as backgrounds, mattes, or alternate sources to control other filters. The filter generates multiple layers of noise and superimposes them to produce the output texture.



*Layer Thin Strands preset*



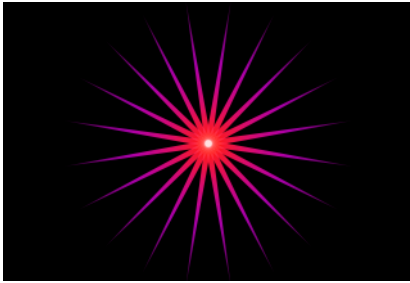
*Noisy Strings preset*



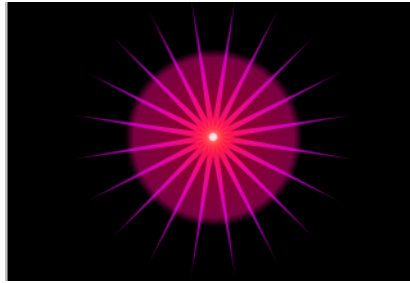
*Wave Hypno Zoom preset*

## BCC Rays

The BCC Rays Generator creates a ray burst effect. The rays can act as a filter on a clip or layer or generate a ray layer. The Rays effect is comprised of two discrete elements, the rays and the glow. The filter provides controls for adjusting each element individually. The rays can be composited over the source image, or you can generate a completely synthetic image.



*Rays*



*Rays with Glow*

## Keys & Mattes Filters

### BCC Motion Key

The BCC Motion Key filter lets you isolate and remove a moving foreground object based on motion estimation. For example, you have a static shot of some buildings and a car passes by on the street in front of the buildings. You could use this filter to remove the car and replace it with the buildings.



*Source image*



*Moving car removed from image*

## Lights Filters

### BCC Rays Cartoon Filter

The BCC Rays Cartoon filter creates the light out of the Cartoon edges of the filter. Using it is the same as using one of the other Rays filters with the Light From channel set to one of the Cartoon Edges choices.



*Unfiltered Image*



*Filtered Image*

### BCC Rays Puffy Filter

The BCC Rays Puffy filter light which spreads from a source point creating a soft, “puffy” appearance. The light is generated from a chosen channel in the source image.



*Unfiltered Image*



*Filtered Image*

## BCC Rays Radiant Edges Filter

The BCC Rays Radiant Edges filter creates light from the edges of the image. This filter includes similar controls to the BCC Rays Cartoon filter.



*Unfiltered Image*



*Filtered Image*

## BCC Rays Radiant Spotlight Filter

The BCC Rays Radiant Spotlight filter is a combination of a Light Ray Filter and a Spotlight. The spotlight can be used to matte either the light source or the rendered light.



*Unfiltered Image*



*Filtered Image*

### BCC Rays Ring Filter

The BCC Rays Ring filter masks the light source with a ring. The resulting light is generated from a selected channel in the source image and spreads from a source point in all directions.



*Unfiltered Image*



*Filtered Image*

### BCC Rays Ripply Filter

The BCC Rays Ripply filter combines a light rays effect with a rippled light effect. The resulting light is generated from a chosen channel in the source image and spreads from a source point in all directions.



*Unfiltered Image*



*Filtered Image*

## BCC Rays Streaky Filter

The BCC Rays Streaky filter produces a light that contains streaks. The resulting light is generated from a chosen channel in the source image, and spreads from a source point in all directions.



*Unfiltered Image*



*Filtered Image*

## BCC Rays Textured Filter

The BCC Rays Textured filter creates a textured light using a noise map pattern. The resulting light is generated from a chosen channel in the source image, and spreads from a source point in all directions.



*Unfiltered Image*



*Filtered Image*

## BCC Rays Wedge Filter

The BCC Rays Wedge filter is a light rays filter that mattes the light source with a wedge-shaped light. The resulting light is generated from a selected channel in the source image, and spreads from a source point in all directions.



*Unfiltered Image*

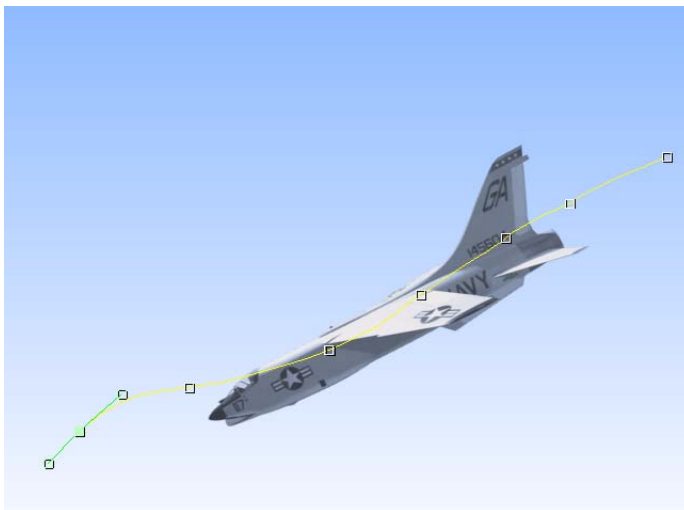


*Filtered Image*

## Motion Filters

### BCC Motion Path

The Motion Path filter allows you to map one or more objects to a two-dimensional path, which you create by drawing a spline object. You can map single tracks, multiple tracks, or 3D containers to the path and rotate, tumble or spin the container to move the path in three-dimensional space.



*Jet flying on a motion path*



## Time Filters

### BCC Optical Stabilizer Filter

The BCC Optical Stabilizer filter allows you to stabilize shaky video footage. The Optical Stabilizer uses optical flow technology to analyze a specified region and then adjusts the track's position to compensate. Unlike many stabilizing tools, the BCC Optical Stabilizer does not require you to set user-defined tracking points. This is useful for images where tracking data is unreliable.



*Stabilized logo in shaky footage of a sign*

### BCC Sequencer Filter

BCC Sequencer allows you to create a looping sequence up to 10 steps long. Each step is comprised of a clip from a layer in the composition. The source layer, start frame, length, and velocity of each step clip can be controlled and animated independently.



*The onscreen Composite Curves provide feedback for looping clips*

## Wipe Transitions

### BCC Criss-Cross Wipe

The Criss-Cross Wipe combines two independent Multi-Stripe filters, to make wipes in a variety of patterns. At the default value, this wipe appears similar to a Grid wipe. The following example shows a Criss-Cross Wipe using Influence on the incoming (waves) media.



*Default Criss-Cross Wipe*



*Criss-Cross Wipe with Influence*

### BCC Linear Wipe

BCC Linear Wipe is similar to a Horizontal wipe. However, it offers a variety parameters for you to customize. This filter is similar to the BCC Rectangular Wipe filter, but wipes in a straight line. The following example shows a Linear Wipe using Influence on the incoming (fish) media.



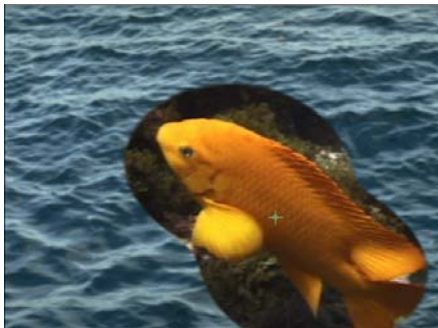
*Default Linear Wipe*



*Linear Wipe with Influence*

## BCC Multi Stretch Wipe

The BCC Multi Stretch Wipe is a radial wipe with three additional stretch controls named Taffy Stretch. The Taffy Stretch parameters do not significantly impact render times. The following example shows a Multi Stretch Wipe using Influence on the incoming (fish) media.



*Default Multi Stretch Wipe*



*Multi Stretch Wipe with Influence*

## BCC Multi Stripe Wipe

The BCC Multi Stripe Wipe is similar to a Horizontal or Vertical Blind wipe. It offers extensive controls to randomize the stripes parameters. The following example shows a Multi Stripe Wipe using Influence on the outgoing (fish) media.



*Default Multi Stripe Wipe*



*Multi Stripe Wipe with Influence*

## BCC Radial Wipe

BCC Radial Wipe produces a radial wipe transition, and contains many controls for unlimited creativity, including Influence controls and preset edge patterns. At the default value, this wipe is similar to a Circle wipe. The following example shows a Radial Wipe using Influence on the incoming (fish) media.



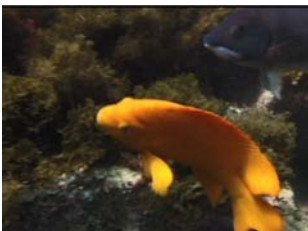
*Default Radial Wipe*



*Radial Wipe with Influence*

## BCC Rectangular Wipe

The BCC Rectangular Wipe filter produces rectangular wipes, using most of the controls from the BCC Radial Wipe filter. This filter does not include any pattern controls. At the default value, this wipe is similar to a Box wipe. The following example shows a default Rectangular Wipe using Influence on the incoming (fish) media. In this effect, the fish swims and cuts through the rectangle as the water wipes on.



*Original Image*



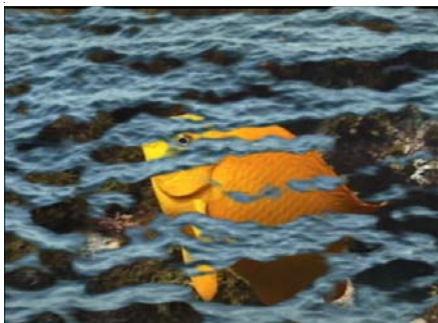
*Default Rectangular Wipe*



*Rectangular Wipe with Influence*

## BCC Textured Wipe

The BCC Textured Wipe creates is a non-geometric wipe using the Influence layer and the Texture settings. By default, the Influence is generated from the luminance of the outgoing clip when you apply the wipe as a transition and by the filtered clip when you apply the wipe as a filter. The following example shows a Textured Wipe using Influence on the both the incoming (water) and outgoing (fish) media.



*Textured Wipe (influence on incoming water)*



*Textured Wipe (Influence on Outgoing)*

## Improved Filters

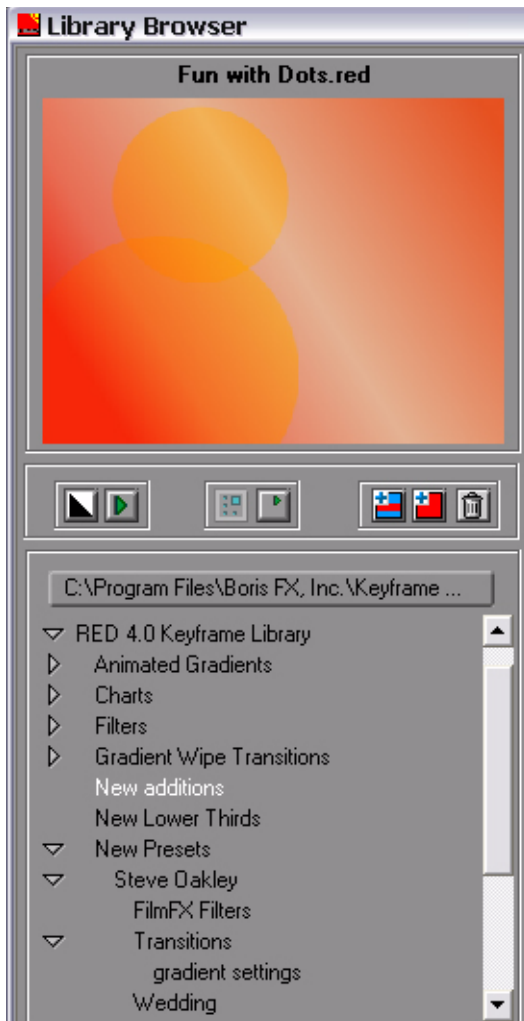
Red 4 features many improvements to its classic Red filters. Many filters include built-in Motion Tracker and Preprocess functions. Others incorporate an enhanced PixelChooser feature as well as hundreds of new filter presets for your convenience.



## New Library Browser Presets

Red 4 includes over 70 new professionally designed Library Browser Presets in the following categories:

- New additions
- New Lower Thirds
- New Presets/Steve Oakley: Film FX Filters, Transitions, & Wedding





# New Host Support

Red 4 adds support for Avid AVX 2.0 API on Windows, enabling the application to take advantage of 16-bit color processing and Avid’s advanced key framing model. Support for Sony Vegas 7.0, Canopus Edius 4.0, and Harris Velocity is also new in this release. Later this year, support will be added for the Avid AVX 2.0 API on Macintosh systems.

Red 4 supports the following host applications.

Macintosh	Windows
Boris Red Engine	Boris Red Engine
Apple® Final Cut Pro HD® 5.0 or later Apple Final Cut Pro 4.0 or later	Adobe® Premiere Pro® 1.5 and 2.0
Avid AVX 1.5 API: Avid® Media Composer®, Avid Symphony® 4.7, 4.8, Avid XpressMac®, Avid Xpress DV® 3.5.4, Avid Xpress Pro® 4.0 or later	Avid AVX 1.0 API: Avid DS 6.0 through 7.6  Avid AVX 1.5 API: Avid® Media Composer®, Avid Symphony®, Avid Xpress®, Avid Xpress DV® 3.0, 3.5.4, Avid Xpress Pro® 4.0 or later, Avid Xpress Studio, Avid Liquid® 7.0  Avid AVX 2.0 API: Avid Xpress Pro® 5.5 or later, Media Composer 2.5 or later, Avid Symphony Nitris 1.5.x Avid Adrenaline Newscutter 6.5.x
	Canopus® Edius 3 and 4
	Harris Velocity
Media 100 i® 8.2 or later, Media 100 HD 10.x and Media 100 sw	Media 100® iFinish 4.6 Media 100 844/x Sony® Vegas® 6.0 Sony® Vegas® 7.0

## Supported Operating Systems

Boris Red 4.0 supports the following operating systems:

- Microsoft® Windows® and Windows XP® SP2
- Apple Macintosh OS 10.4.X

## **System Requirements**

- A minimum 1 GB of RAM is required, and 2 GB is recommended when using Boris Red with a host application.
- 512 MB of memory is required when using Boris Red standalone.
- QuickTime version 6.5 or later installed

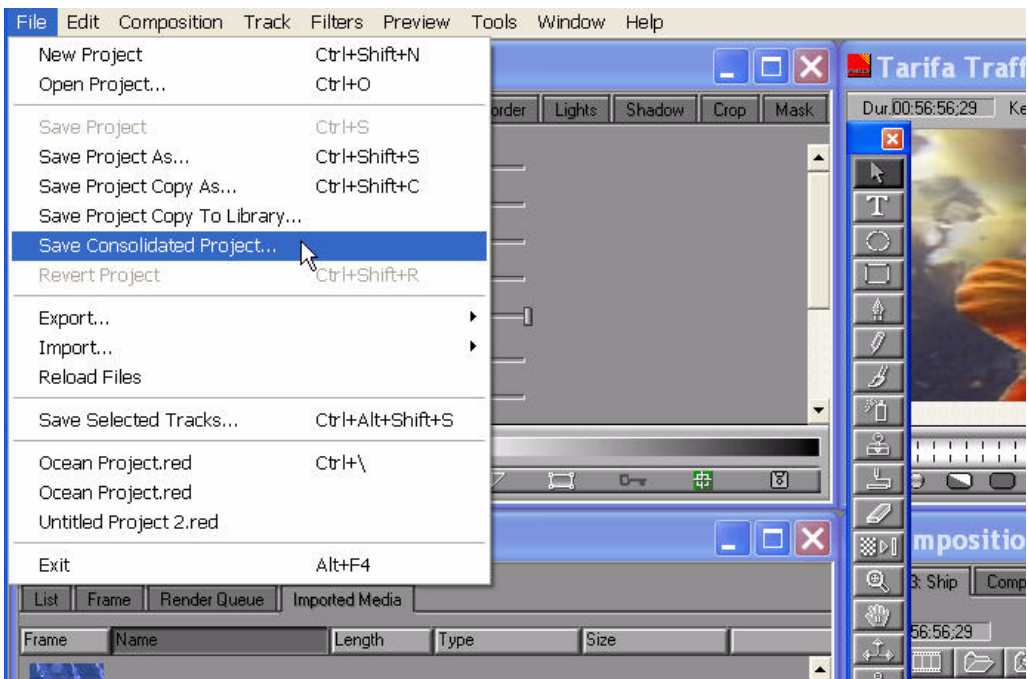
For the best performance possible, Boris Red 4.0 supports dual processors and Hyper Threading. To download the standalone version of QuickTime from the Apple Web site go to [\*\*www.apple.com\*\*](http://www.apple.com).

## Productivity Enhancements

### Consolidate Project

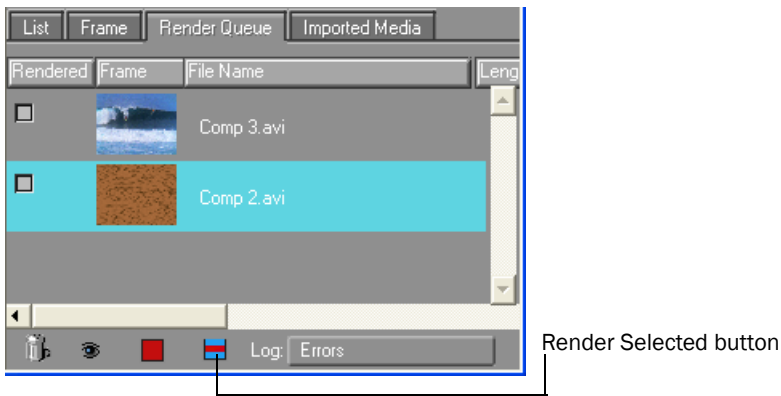
Consolidate Project makes it easier to move Red projects and media to another system. It copies all files associated with a project, including the original media files and the Red project file, to a single folder. You can then move the folder onto another system to continue working on the project. When you open the consolidated project, your source media is automatically re-linked in the Media Files window. The following example shows a consolidated project folder containing the Red project and source media.

Name	Size	Type	Date Modified
10 Water.mov	10,781 KB	QuickTime Movie	6/18/2002 12:00 AM
Ocean Project.red	429 KB	Boris RED settings File	9/7/2006 12:41 PM
optical_stabilizer.mov	2,760 KB	QuickTime Movie	12/13/2005 12:12 PM
VUS101.mov	128,588 KB	QuickTime Movie	3/13/2001 5:01 AM

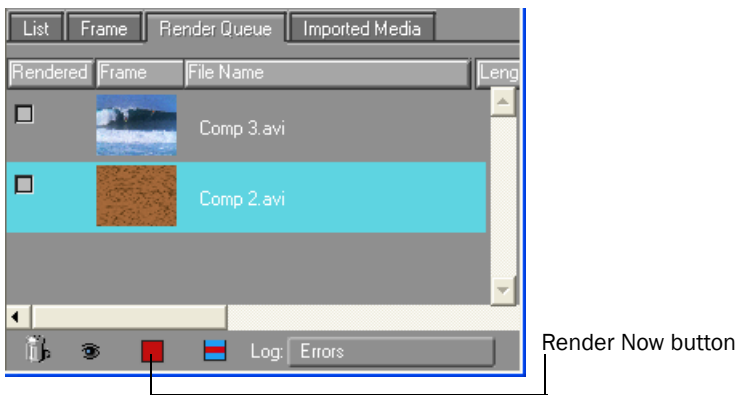


## Improved Render Queue

There are several changes to the Render Queue window that affect how compositions are rendered. There is a new way of choosing the compositions you'd like to render. Click the Render Selected button and the selected compositions in the Render Queue window are rendered.



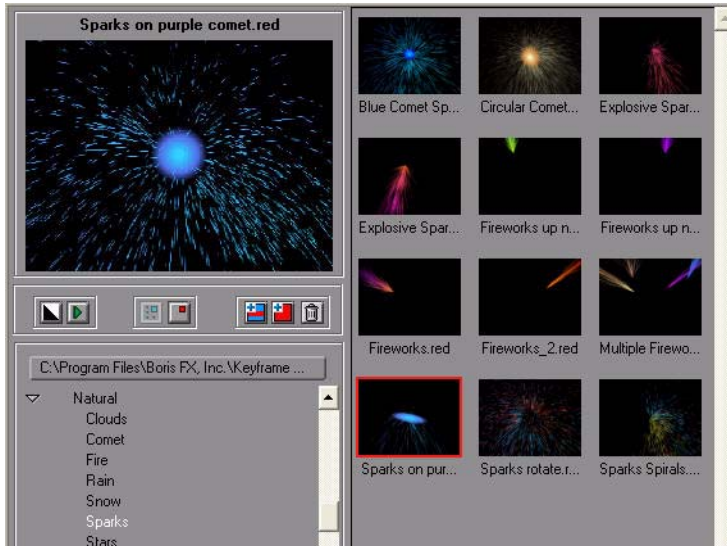
- The Render Now button, which continues to function as it previously did, has a new icon.



- Right-clicking on a composition and choosing Open Render Item opens the composition in the timeline for additional editing.
- A new Render Time column is added to the Render Queue when a composition has been rendered.

## Browser-only Option for Easy Access to Library Effects

You can set Boris Red to open directly into the Library browser from your NLE. In the Library Browser you can preview and apply hundreds of presets, making it easier than ever before to add new looks to your projects.



## Preview to RAM Range

Preview to RAM Range is a new feature that gives you several options for specifying a region of the Timeline to play back. This feature is especially handy when you are working with long clips and need to preview a section of your composition. Preview to RAM Range is also very useful in client demo sessions. Look for this feature under the Preview menu.

# **Boris Red 4.3 New Features**

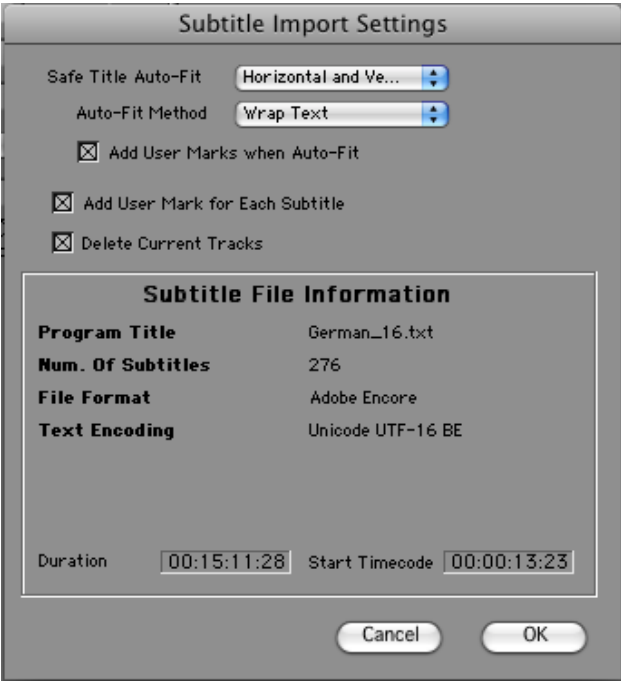
**Subtitle Improvements**

**Library Browser Workflow Enhancements**

**New Host Support**

# New subtitleling features in Boris RED 4.3

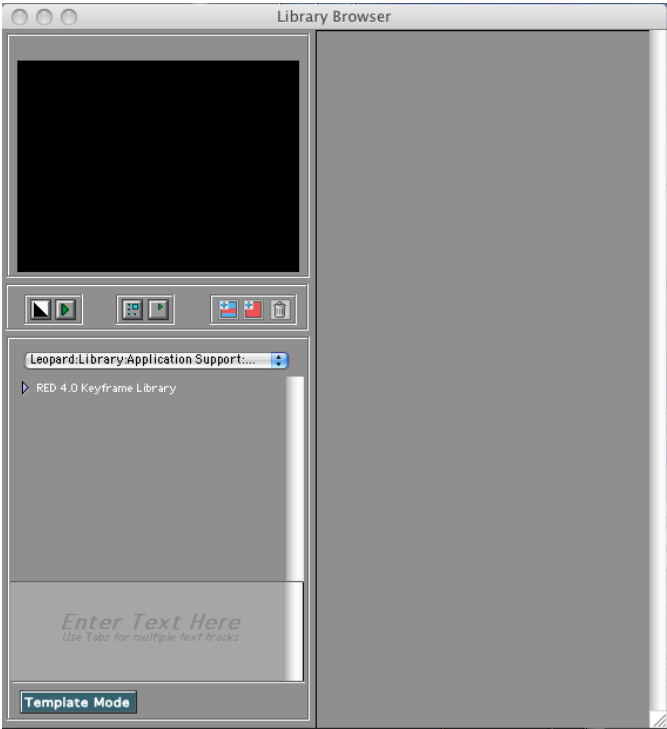
In this update we now support the Adobe Encore subtitle format. This extends RED’s subtitling capability by giving the user a text based format to import from.





# Library Browser Workflow Enhancements

Changes have been made to our Library Browser making the workflow while inside a host application much more user friendly. First we now call our Browser Only Mode Template Mode and have labeled the button for accessing this mode accordingly.



Text entry for title effects has also been addressed. When you select an effect the text is now inserted into the Text Entry window and becomes editable. For effects with Multiple lines (ex. lower thirds) TABS are used to seapate the lines.



## Supported Host Applications

Red 4.3 adds support for latest Avid Media Composer and Symphony editing suites.

Red 4 supports the following host applications.

Macintosh	Windows
Boris Red Engine	Boris Red Engine
Adobe® After Effects® CS 3	Adobe® After Effects® CS 3 Adobe® Premiere Pro® 1.5, 2.0, and CS 3
Apple® Final Cut Pro® 6.0 or later Apple® Final Cut Pro HD® 5.0 or later	Avid Liquid® 7.0
Avid AVX 1.5 API: Avid® Media Composer®, Avid Symphony® 4.7, 4.8, Avid XpressMac®, Avid Xpress DV® 3.5.4, Avid Xpress Pro® 4.0 or later Avid AVX 2.0 API: Avid Xpress Pro® 5.5 or later, Media Composer 2.5 or later, Avid Media Composer 3 Avid Symphony 3	Avid AVX 1.0 API: Avid  DS 6.0 through 7.6 Avid AVX 1.5 API: Avid® Media Composer®, Avid Symphony®, Avid Xpress Pro® 4.0 or later, Avid Xpress Studio, Avid AVX 2.0 API: Avid Xpress Pro® 5.5 or later, Media Composer 2.5 or later, Avid Symphony Nitris 1.5.x Avid Adrenaline Newscutter 6.5.x Avid Media Composer 3 Avid Symphony 3
	Canopus® Edius 3 and 4.X
	Harris Velocity
Media 100 i® 8.2.3a, Media 100 HD 11.x and Media 100 Producer 11.x	Media 100® iFinish 4.6 Media 100 844/x
	Sony® Vegas® 7.0 Sony® Vegas® 8.0